

What is claimed is:

1. A method for performing a handoff from an asynchronous base station to a synchronous base station, comprising the steps of:

a) setting a common channel between the synchronous base station and a mobile station;

b) determining whether there is an asynchronous base station to be handed off in neighbor asynchronous base stations based on monitoring information of the neighbor asynchronous base stations;

c) if there is no asynchronous base station, requesting a handoff to the synchronous base station and receiving a compressed mode message through the common channel;

d) selecting a synchronous base station to be handed off based on the compressed mode message; and

e) performing the handoff from the asynchronous base station to the synchronous base station selected.

2. The method as recited in claim 1, wherein information transmitted through the common channel includes a common code, a zero offset, a long code state and a synchronous channel super frame timing.

3. The method as recited in claim 1, wherein the step d) includes the steps of:

d1) obtaining a pseudo noise (PN) sequence zero offset

timing based on the common code and the zero offset; and

d2) obtaining the long code state and the synchronous channel super frame timing.

5 4. The method as recited in claim 2, wherein the common channel is transmitted in synchronization with a starting point of a pilot channel of the synchronous base station.

10 5. The method as recited in claim 3, wherein the step d2) includes the steps of:

d21) obtaining a synchronization of the common channel;

d22) storing one period of the common channel;

d23) accumulating an output value of the common channel at every period, thereby generating accumulated values; and

d24) selecting a maximum value of the accumulated value.

15 6. The method as recited in claim 3, wherein the step d2) includes the steps of:

d21) obtaining a synchronization of the common channel;

20 d22) storing one period of the common channel;

d23) calculating output values of the common channel at every period; and

d24) selecting the most frequent output value.

25 7. The method as recited in claim 2, wherein the long code state and the synchronous channel super frame timing are N-ary modulated and then transmitted.

8. A method for performing a handoff from an asynchronous base station to a synchronous base station, comprising the steps of:

5 a) setting at least one common channel between the synchronous base station and a mobile station;

10 b) determining whether there is an asynchronous base station to be handed off in neighbor asynchronous base stations based on monitoring information of the neighbor asynchronous base stations;

15 c) if there is no asynchronous base station, requesting a handoff to the synchronous base station and receiving a compressed mode message through a common channel;

20 d) selecting a synchronous base station to be handed off based on the compressed mode message; and

25 e) performing the handoff from the asynchronous base station to the synchronous base station selected.

9. The method as recited in claim 8, wherein information transmitted through the common channel includes a common code, a zero offset, a long code state and a synchronous channel super frame timing.

10. The method as recited in claim 8, wherein the step d) includes the steps of:

 d1) obtaining a pseudo noise (PN) sequence zero offset timing based on the common code and the zero offset; and

d2) obtaining the long code state and the synchronous channel super frame timing.

11. The method as recited in claim 9, wherein the common channel is transmitted in synchronization with a starting point of a pilot channel of the synchronous base station.

12. The method as recited in claim 10, wherein the step d2) includes the steps of:

d21) obtaining a synchronization of the common channel;
d22) storing one period of the common channel;
d23) accumulating an output value of the common channel at every period, thereby generating accumulated values; and
d24) selecting a maximum value of the accumulated value.

13. The method as recited in claim 10, wherein the step d2) includes the steps of:

d21) obtaining a synchronization of the common channel;
d22) storing one period of the common channel;
d23) calculating output values of the common channel at every period; and
d24) selecting the most frequent output value.

14. The method as recited in claim 9, wherein the long code state and the synchronous channel super frame timing are N-ary modulated and then transmitted.